

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Thackeray et al.

EXPRESS MAIL LABEL NO. ET495752953US

FILED: Herewith

FOR: ANTIHALATION COMPOSITIONS

THE HONORABLE COMMISSIONER OF PATENTS AND TRADEMARKS
WASHINGTON, DC 20231

SIR:

PRELIMINARY AMENDMENT

Applicants file herewith the above-referenced application. Please amend the referenced application as follows.

IN THE CLAIMS

Please cancel claims 1-35 without prejudice.

Please add the following new claims.

36. A coated substrate comprising:
a substrate having thereon:
a coating layer of an antireflective composition, the antireflective composition comprising a benzoguanamine crosslinker; and
a coating layer of a photoresist composition over the antireflective layer.
37. The substrate of claim 36 wherein the antireflective composition layer is crosslinked.
38. The substrate of claim 36 wherein the antireflective composition comprises a benzoguanamine resin.

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39. The substrate of claim 36 wherein the antireflective composition further comprises a melamine crosslinker component.

40. The substrate of claim 36 wherein the antireflective composition comprises a thermal acid generator.

41. The substrate of claim 36 wherein the antireflective composition comprises an anthracene material.

42. The substrate of claim 36 wherein the substrate is a microelectronic wafer.

43. A coated substrate comprising:
a substrate having thereon:
a coating layer of an antireflective composition, the antireflective composition comprising a crosslinker and an anthracene material; and
a coating layer of a photoresist composition over the antireflective layer.

44. The substrate of claim 43 wherein the antireflective composition layer is crosslinked.

45. The substrate of claim 43 wherein the antireflective composition comprises a thermal acid generator.

46. The substrate of claim 43 wherein the substrate is a microelectronic wafer.

47. A method for forming a relief image on a substrate comprising:
applying on the substrate a layer of an antihalation composition comprising a benzoguanamine crosslinker;
applying over the antihalation composition layer a photoresist composition.

48. The method of claim 47 wherein the antihalation composition layer is crosslinked prior to applying the photoresist composition.

49. The method of claim 47 wherein the antireflective composition comprises a benzoguanamine resin.

50. The method of claim 47 wherein the antireflective composition further comprises a melamine crosslinker component.

51. The method of claim 47 wherein the antireflective composition comprises a thermal acid generator.

52. The method of claim 47 wherein the antireflective composition comprises an anthracene material.

53. The method of claim 47 wherein the substrate is a microelectronic wafer.

54. A method for forming a relief image on a substrate comprising:
applying on the substrate a layer of an antihalation composition comprising an anthracene material;
applying over the antihalation composition layer a photoresist composition.

55. The method of claim 54 wherein the antihalation composition layer is crosslinked prior to applying the photoresist composition.

56. The method of claim 54 wherein the antireflective composition comprises a thermal acid generator.

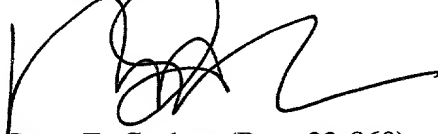
57. The method of claim 54 wherein the substrate is a microelectronic wafer.

REMARKS

Claims 1-35 have been cancelled without prejudice, and claims 36-57 have been added. No new matter has been added by virtue of the amendments. For instance, support for the new claims appears e.g. page 8 and the original claims of the application.

Early consideration and allowance of the application are respectfully requested.

Respectfully submitted,



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MARKED UP VERSION TO SHOW CHANGES

20. (amended) A coated substrate comprising:
a substrate having thereon
- 1) a coating layer of an antireflective composition of claim 18 [17]; and
 - 2) a coating layer of a photoresist.

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